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**CLINICAL ADVISORY:
ROUTINE SCREENING FOR HEPATITIS C**
Updated: October 2014

The Massachusetts Department of Public Health (MDPH) endorses recommendations of the Centers for Disease Control and Prevention, and the U.S. Preventive Services Task Force and recommends routine hepatitis C virus (HCV) screening for individuals at risk for HCV and for individuals born between 1945 and 1965, due to the significant individual and public health benefits associated with knowledge of HCV status and prompt linkage to medical care and preventive services. Pursuant to M.G.L. c. 111, § 4M as amended by Section 138 of Chapter 165 of the Acts of 2014, primary care providers shall offer hepatitis C testing to individuals born between 1945 and 1965.

This Clinical Advisory provides practice guidelines to support implementation of the recommendation along with background information about the impact of HCV in the Commonwealth, the basis for the current MDPH recommendation, and sources of additional information.

Practice Guidelines

The MDPH recommends that health care providers:

1. Test all patients born between 1945 and 1965 for HCV, at least once, regardless of HCV risk history.
2. Ask all patients whether they have ever injected illicit drugs. Recommend HCV testing to individuals who have injected illicit drugs, even if only once or in the distant past.
3. Test all HIV-infected patients for HCV at initial evaluation.^{1,2}
 - a. HIV-infected patients should also be tested for HCV if liver function tests indicate abnormalities that could be caused by HCV infection.
 - b. HIV-infected men who have sex with men (MSM), including those who have previously undergone successful treatment for or spontaneously cleared HCV infection, should be routinely screened for HCV to identify reinfection with HCV.^{3,4,5}
4. Assess all patients for other HCV risks. Recommend HCV testing for individuals who:
 - Have persistently elevated alanine aminotransferase (ALT) levels;

- Received blood products for clotting factor replacement prior to 1987;
 - Received blood transfusions or organ transplant prior to July, 1992;
 - Have ever been on long-term hemodialysis;
 - Are children born to mothers with HCV infection;
 - Are health care workers and others who have had mucosal or percutaneous exposure to HCV-infected blood.
5. For patients who test positive for HCV antibody, order an HCV nucleic acid test (NAT) to confirm current HCV infection.⁶
 6. For patients with current HCV infection:
 - a. Promptly evaluate for treatment and/or provide treatment referrals;
 - b. Provide counseling about how to maintain liver health and how to prevent secondary transmission;
 - c. Recommend vaccination for hepatitis A and hepatitis B, if appropriate;
 - d. Refer for drug and alcohol treatment, if appropriate.
 7. Patients who currently inject drugs, regardless of current HCV infection status, should be:
 - a. Tested for HIV infection;
 - b. Provided with access to sterile injection equipment and naloxone to prevent overdose;
 - c. Referred for opioid replacement therapy and/or other drug treatment, if appropriate.
 8. Complete and submit to MDPH a case report form for each newly identified case of HCV infection. HCV infection is reportable pursuant to 105 CMR 300.000 Reportable Diseases, Surveillance, and Isolation and Quarantine Requirements. Case report forms will be sent by MDPH to providers automatically based on receipt of laboratory test results indicating HCV infection.

Background

Hepatitis C virus (HCV) infection is a serious public health problem. The Centers for Disease Control and Prevention (CDC) estimates that there are at least 2.7 to 3.9 million persons in the U.S. living with HCV, up to 75 percent of whom are not aware of their infection. Approximately 75 to 85 percent of people exposed to HCV will develop chronic infection, 60 to 70 percent will develop chronic liver disease, five to 20 percent will develop cirrhosis over the course of their chronic infection, and between one and five percent will die of complications from HCV infection, including hepatocellular carcinoma.⁷ There is no vaccine that protects against HCV infection.

In Massachusetts, between 7,000 and 10,000 newly diagnosed cases of HCV infection are reported annually to the MDPH. Based on MDPH surveillance data, it is estimated that approximately 200,000 people in Massachusetts are living with HCV infection. There has been a significant increase in HCV infection among young people who inject drugs. Between 2002 and 2013 annual reports of new HCV diagnoses in individuals between the ages of 15 and 29 years

increased by 137 percent. MDPH estimates that there are approximately 8,500 new infections in this age group annually and transmission is attributable primarily to injecting heroin and/or prescription opiates.

HCV infection is a major cause of liver disease, including cirrhosis and liver cancer. In the U.S. rates of liver cancer and deaths due to HCV infection continue to increase and have now exceeded those of HIV infection, with approximately 15,000 HCV-associated deaths occurring in the U.S. in 2007.^{8,9,10} In Massachusetts, among those with known HCV infection who died through 2009, the median interval between HCV infection diagnosis and death was three years, and the median age of death attributable to HCV infection was 54 years, suggestive of late diagnosis.

Basis for Current Recommendation

In July 2014, the M.G.L. c. 111, § 4M was amended by Section 138 of Chapter 165 of the [Acts of 2014](#) to require primary care providers to offer testing for hepatitis C infection to patients born between 1945 and 1965 unless medically inadvisable, the patient lacks capacity to consent to testing, or the patient has previously been offered or been tested for hepatitis C infection.

In August 2012, the Centers for Disease Control and Prevention (CDC) issued [Recommendations for the Identification of Chronic Hepatitis C Virus Infection Among Persons Born During 1945–1965](#) recommending one-time testing, regardless of HCV risk, for persons born during 1945 to 1965.¹¹ These recommendations complement and do not replace previous recommendations for risk-based testing.

In its [Recommendations for Prevention and Control of Hepatitis C Virus Infection and HCV Related Chronic Disease](#) the CDC recommends routine testing for HCV based on risk for infection.¹² Individuals at risk for HCV infection include those who inject(ed) drugs, received long-term hemodialysis, received clotting factor prior to 1987, or were recipients of transfusions or organ transplants prior to 1992.

On June 25, 2013, the US Preventive Services Task Force (USPSTF) issued a [recommendation on HCV screening](#).¹³ The USPSTF recommends screening for HCV infection for persons at risk of infection and also recommends one-time screening for HCV infection for all adults born between 1945 and 1965. The USPSTF assigned a B grade to this recommendation. Assignment of a “B” grade by the USPSTF means that providers will have increased opportunities to seek third-party reimbursement for these services because, beginning in 2014, HCV screening will be covered by most private and public health insurance. The Affordable Care Act (ACA) requires that private insurance plans cover USPSTF preventive care recommendations that receive an “A” or “B” grade, and to do so without cost sharing.

Benefits of HCV Testing, Care, and Treatment

Testing is the critical first step to linking individuals with HCV infection with preventive care and treatment that will improve their health, delay disease progression, and reduce mortality. Screening individuals born between 1945 and 1965 can identify individuals infected with HCV who would otherwise not be tested.

Antiviral treatment is only indicated for persons with current HCV infection. Therefore it is essential that testing be performed that distinguishes patients with current HCV infection from those who have previously undergone successful treatment or have spontaneously cleared

HCV infection. NAT testing should be performed to confirm current infection for all individuals receiving positive HCV antibody test results.

Provision of counseling about how to maintain liver health (e.g. by limiting alcohol or other drug consumption) and prevent secondary transmission (e.g. by not sharing syringes, tattoo, or body piercing equipment and by avoiding blood exposure during sexual contact) and referral to other preventive services, such as hepatitis A and B vaccines, and drug or alcohol treatment can improve health outcomes for individuals living with HCV infection. Provision of risk reduction supplies, such as sterile injection equipment can support behavior change, as can access to opioid replacement therapies.

The American Association for the Study of Liver Diseases and the Infectious Diseases Society of American has updated practice guidelines for testing, management, and treatment of HCV infection: [Recommendations for Testing, Managing, and Treating Hepatitis C](#). With proper support, individuals actively using drugs can be treated for HCV infection and achieve sustained virologic response.¹⁴ Treatment for HCV infection is evolving rapidly and newer treatment regimens promise treatment of shorter duration, easier drug administration, better patient tolerability, and improved efficacy. The advent of these improved therapies reinforces the importance of identifying previously undetected cases of HCV infection.

REFERENCES

¹ Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. Downloaded from <http://aidsinfo.nih.gov/guidelines> on 7/15/2013

² CDC. Sexually transmitted diseases treatment guidelines, 2010. *MMWR* 2010;59(No. RR-12).

³ Garg S, Taylor LE, Grasso C, Mayer KH. Prevalent and incident hepatitis C virus infection among HIV-infected men who have sex with men engaged in primary care in a Boston community health center. *Clinical Infectious Disease* 2013 May; 56(10):1480-7. doi:10.1093/cid/cit054

⁴ CDC. Sexual transmission of hepatitis C virus among HIV-infected men who have sex with men – New York City, 2005-2010. *MMWR* 2011; 60(28):945-950.

⁵ Yaphe S, Bozinoff N, Kyle R et al. Incidence of acute hepatitis C virus infection among men who have sex with men with and without HIV infection: A systematic review. *Sexually Transmitted Infections* 2012; 88(7):558-564.

⁶ CDC. Testing for HCV infection: an update of guidance for clinicians and laboratorians. *MMWR* 2013; 62(18):362-365.

⁷ World Health Organization Hepatitis C Fact Sheet <http://www.who.int/mediacentre/factsheets/fs164/en/> [Accessed July 2, 2013]

⁸ Kanwal F, Hoang T, Kramer JR, et al. Increasing prevalence of HCC and cirrhosis in patients with chronic hepatitis C infection. *Gastroenterology* 2011; 140:1182-8.

⁹ Everhart JE, Ruhl CE. Burden of digestive diseases in the United States Part III: liver, biliary tract and pancreas. *Gastroenterology* 2009; 136:1134-44.

¹⁰ Ly KN, Xing J, Kleven RM, Jiles RB, et al. The increasing burden of mortality from viral hepatitis in the United States between 1999 and 2007. *Annals of Internal Medicine* 2012; 156:271-8.

¹¹ CDC. Recommendations for the identification of chronic hepatitis C virus infection among persons born during 1945–1965. *MMWR* 2012;61(No.RR-4).

¹² CDC. Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. *MMWR* 1998;47(No. RR-19).

¹³ U.S. Preventive Services Task Force Screening for hepatitis C virus infection in adults: U.S. Preventive Services Task Force recommendation statement *Ann Intern Med*. Published online 25 June 2013
doi:10.7326/0003-4819-159-5-201309030-0067299699

¹⁴ Litwin AH, Harris KA Jr, Nahvi S, et al. Successful treatment of chronic hepatitis C with pegylated interferon in combination with ribavirin in a methadone maintenance treatment program. *J Substance Abuse Treatment* 2009;37(1):32-40.

RESOURCES

For Health Care Professionals:

- From the Massachusetts Department of Public Health:

[Hepatitis C Resources for Health Care Providers](#)

A resource guide for medical providers, and brochures, factsheets and educational materials for patients are available for download.

- From the CDC:

[Hepatitis C Information for the Health Professional](#)

Information regarding the epidemiology of HCV, testing and diagnosis, and medical management of HCV is available. Screening and treatment guidelines can be downloaded. Links to additional resources and information for patients is also available.

[Hepatitis Web Study](#)

This site provides information regarding the diagnosis and management of viral hepatitis for health care workers involved with the care of patients at risk for infection with hepatitis. Interactive case-based study modules with free CE credits are features. Slide presentations are available for download.

[National Training Center for Integrated Hepatitis HIV/STD Prevention Services](#)

The National Training Center provides training to workers in community based organizations and clinics on hepatitis prevention, diagnosis, management, treatment and integration. Video training and links to other training and educational resources are available.

- From the American Association for the Study of Liver Diseases :

[Diagnosis, Treatment and Management of Chronic Hepatitis C](#)

The AASLD publishes practice guidelines for the diagnosis, treatment and management of hepatitis C infection. AASLD publishes tools for clinicians including "GUIDELINES Pocket Cards" which present guidelines information concisely. Training, certification and CME opportunities are also available.

For the Public

- From the Massachusetts Department of Public Health:

[Hepatitis C Information and Resources](#)

Fact sheets and educational brochures published in several languages are available for download. A directory of MDPH-supported hepatitis C screening, care and support services is available as well as links to other resources and support organizations.

Information about hepatitis C and service referrals can also be obtained by contacting the Massachusetts Hepatitis C Hotline at 1-888-443-HepC (4372)

- From the CDC:

[Hepatitis C Information for the Public](#)

Information about the epidemiology, transmission and prevention of hepatitis C is available. The site also provides links to patient information resources and educational materials.